



Transportation Safety In Our National Parks

Access to and within the National Park System has been a defining experience for generations of visitors.

The National Park Service (NPS) coordinates the planning and implementation of transportation systems that improve the visitor experience and care for national parks by:

- Preserving natural and cultural resources.
- Enhancing visitor safety and security.
- Protecting plant and animal species.
- Reducing congestion.
- Decreasing pollution.

NPS is committed to being a leader in pursuing strategies that can help make park units more enjoyable, cleaner, quieter, and more sustainable for present and future generations.

For more information, visit nps.gov/transportation

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From 2001 to 2005, the National Park System experienced 29,642 reported total crashes while hosting 2.1 billion recreational and non-recreational visits. Associated crash fatalities, personal injuries, and property damage resulted in societal costs of \$1.143 billion¹.



The distractions of great scenery and the wildlife encountered in National Parks can lead to crashes, some very serious. (NPS Photo)

Addressing The Challenges

Crashes on NPS land and their associated impacts occur at alarming rates:

- A person is killed in a crash every 7.2 days;
- A person is injured in a crash every 4.2 hours;
- Property damage due to crashes occurs every 1.6 hours; and
- A traffic crash occurs every 1.3 hours.

In 2004, based on available data, the estimated fatality rate for the National Park system was 1.89 fatalities per 100 million vehicle miles traveled; this is higher than the US national rate 1.44 of fatalities per 100 million miles traveled.

While many of the crashes are associated with the National Park's urban parkways, where both commuters and park visitors drive, other higher risk areas are found in more typical Park settings. The to-be expected distractions of great scenery and wildlife encountered while traveling on unfamiliar, rural-type roads shared by other drivers similarly distracted can and does lead to crashes, some very serious. Addressing these challenges and reducing the risks to both visitors and the Park resources is an ongoing effort.

¹ The societal cost of crashes, which is a means to quantify in dollars the cost of an automobile crash, was calculated based on data in the NHTSA 2002 guidance document, "The Economic Impact of Motor Vehicle Crashes 2000" and in the FHWA memorandum titled, "Treatment of the Economic Value of a Statistical Life in Departmental Analysis, February 5, 2008"

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Improving The Record

The National Park Service (NPS) is committed to improving the safety record of its roadways and parkways. As part of its Safety Management System activities, the NPS recently completed a service wide analysis of motor vehicle crash data to determine the severity, type, and distribution of motor vehicle crashes. The patterns identified are helping NPS develop safety strategies that can be implemented to reduce the risk of future crashes. These safety enhancement can include such actions as constructing safety wedges (a 45 degree slope on the outside edge and centerline of the pavement) as part of resurfacing projects; enhancing pavement markings and warning signs; and installing rumble strips at appropriate locations.



In addition to serious injury or the loss of life, accidents can lead to the degradation of the environment. (NPS photo.)

Current examples of recent safety management system activities at NPS:

- Northeast Region Long Range Transportation Safety Plan study identified the top ten parks with the most severe and total crashes. This study identified over \$9.3 million in funding need for traffic safety countermeasures projects to reduce fatal, injury and property damage crashes for the top 16 routes within those parks. The societal benefits are calculated at \$46 million and 600 lives saved over 10 years if these projects are funded. The NER is continuing to investigate and address traffic safety concerns in alternative transportation, priority pavement and bridge management projects, and upgrading safety signage to meet federal guidelines as a part of this overall effort.
- The NPS completed a pilot in-depth traffic safety study at Delaware Water Gap National Recreation Area which identified a series of safety countermeasure recommendations. The highest priorities were bundled into one contract awarded in FY10 for \$2.7 million for Route 209 which was identified as the most dangerous route in the Northeast Region. The project will improve safety at 14 intersections, make guardrail improvements and install a prototype animal crossing warning system. The work will be monitored in the future to evaluate the performance of the countermeasure recommendations.
- Road Safety Audit Reviews are in process for Mammoth Cave National Park in the Southeast Region and for Hot Springs National Park in Midwest Region.



National park rangers perform a sobriety check within a national park. (NPS photo)

The National Park Service and the Federal Lands Highway Division are working together to identify and integrate safety management strategies into their ongoing transportation asset management system efforts designed to achieve the highest levels of safety and service for the visiting public, protect the natural and cultural resources of the Parks, and deliver the best possible return on investment with the public funds made available.